Quick Install Guide

Tsunami MP.11 5012-SUR
Version 4.0.0

Quick Install

Proxim wireless

Part Number: *73888 (CD version)*
73890 (Print version)

NOTICES

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INTRODUCTION

The Tsunami MP.11 Model 5012-SUR is a flexible wireless outdoor client that let you design solutions for point-to-point links and point-to-multipoint networks.

The 5012-SUR is part of the Tsunami MP.11 product family, which is comprised of several additional products, including:

- The 5054 Base Station (BSU) and the 5054 Subscriber Unit (SU) for indoor installation
- The 954-R, 2454-R, 4954-R, 5054-R, and 5054-R-LR Base Station and Subscriber Station Units for outdoor installation
- 5012-SUI and the 5054-SUI Subscriber Units for indoor installation

Key Features

Some of the key features of the product family are:

- The use of a highly optimized protocol for outdoor situations
- Routing and bridging capability
- Asymmetric bandwidth management
- Management through a Web Interface, a Command Line Interface (CLI), or Simple Network Management Protocol (SNMP)
- Software and configuration upgrade through file transfer (TFTP)
- Integrated antenna
- VLAN support (configured on Base Station)

This document shows the basics of setting up the units. For detailed information, see the *Installation and Management Guide*.

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PACKAGE CONTENTS

Each Tsunami 5012-SUR shipment includes the items listed in the following table. Verify that you have received all parts of the shipment.

Note:

Cables are not provided with the unit.

5012-SUR unit	
Band clamps (2)	
Installation CD	

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HARDWARE AND SOFTWARE INSTALLATION

IMPORTANT!

Before installing this product, see "Safety and Regulatory Information" on the product CD for important safety and regulatory compliance information.

IMPORTANT!

All units must be installed by a suitably trained professional installation technician or by a qualified installation service.

Notes:

- Be sure to read the **Release Notes** file on the installation CD as it contains software version and driver information that may not have been available when this document was produced.
- The Configure System window provides a selectable Country field that automatically provides the allowed bandwidth and frequencies for the selected country as well as, where applicable, Dynamic Frequency Selection (DFS) and Transmit Power Control (TPC).
- Equipment is to be used with and powered by an 802.3af-compliant power injector (purchased separately).

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Step 1: Choose a location

To make optimal use of the unit, you must find a suitable location for the hardware. The range of the unit largely depends upon the position of the integrated antenna. Proxim recommends you do a site survey, observing the following requirements, before mounting the hardware.

- The location must allow easy disconnection of the unit from the power outlet if necessary.
- The unit must not be covered and the air must be able to flow freely around the unit.
- The unit must be kept away from vibration, excessive heat, and humidity, and kept free from dust buildup.
- The installation must conform to local regulations at all times.

The units are designed to mount directly to a 1” - 1.5” pole (not included) using the supplied band clamps. An optional universal pole mounting kit is also available from Proxim (P/N 1087-UMK); this kit is designed to mount directly to a flat surface such as a roof, wall, or under an eave.

As the units are electrically isolated from the mounting pole, there is no need to ground the unit.

Caution!

Local regulations may require the use of a lightning arrestor at the building ingress point. Be sure to comply with this and all local regulations. You can purchase the Proxim Lightning Protector MP.11/QB.11 (70251); see the documentation that comes with the Lightning Protector for more information and installation instructions.

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Step 2: Attach cables

Note:

Depending on your application and location, you may find it easier to mount the unit before you attach cables to it. If this is the case, remove the cable cover (as explained in step 1 below), and then complete *Step 3: Mount Unit to Pole*. Return to this step for cabling instructions.

1. With the laying unit face down, depress both buttons on the back of the 5012-SUR unit, and pull the plastic cover downward to open. Remove cover.

2. Connect one end of an Ethernet cable (5.5 mm/.217 in OD maximum; not supplied) to the unit's LAN port.
3. Route the Ethernet cable as shown below.

4. Connect the other end of the Ethernet cable to the Data and Power Out port of the DC Injector.

Note:

You must use an 802.3af-compliant power injector, such as the Proxim 1-Port Power Injector (P/N 4301-xx).

5. Connect one end of a second Ethernet cable (not supplied) to the Data In port of the DC Injector and the other end to a switch, hub, patch panel, or single computer:
   - Use a straight-through Ethernet cable if you are connecting the unit to

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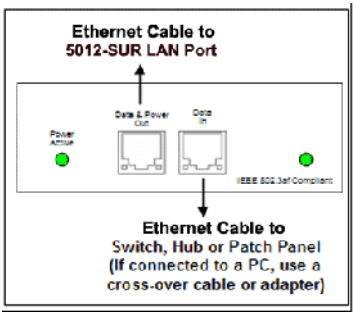
a switch, hub, or patch panel.

- Use a cross-over Ethernet cable or adapter if you are connecting the unit to a single computer or most router ports.



Step 3: Mount Unit to Pole

Mount the 5012-SUR to a pole as follows:

1. Using a screwdriver, turn the screw on the band clamp counter-clockwise until the clamp opens.

2. Place the back of the 5012-SUR against the pole such that the pole fits into the curved portion of the unit.

3. With the 5012-SUR aimed in the direction of the BSU, slide the flat end of the band clamp around the pole and through the top opening in the 5012-SUR unit, threading the flat end of the band clamp into the metal catch at the other end.
4. Using a 5/16” nutdriver or a screwdriver, turn the screw on the band clamp clockwise until it is tight enough to hold the unit in place

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Note:

Do not fully tighten band clamps; you must first ensure a functional link to the BSU (see Step 4: View LEDs/Adjust Mounting).

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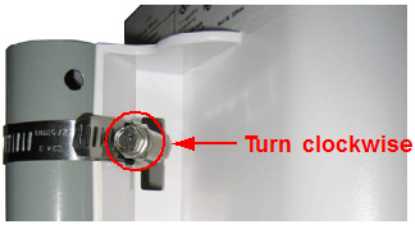

5. Repeat procedure to attach other band clamp through bottom opening in the 5012-SUR unit.

Note:

Do not fully tighten band clamps; you must first ensure a functional link to the BSU (Step 4: View LEDs/Adjust Mounting).

The mounted unit, using the optional Proxim universal pole mounting kit (P/N 1087-UMK), is shown below.

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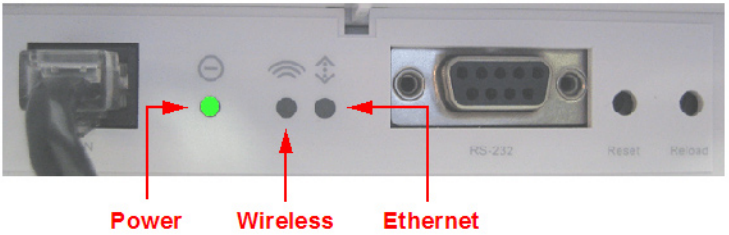
Step 4: View LEDs/Adjust Mounting

LEDs are located in the cable compartment.



When the unit is powered on, the 5012-SUR performs startup diagnostics. When startup is completed, the LEDs show the operational state of the 5012-SUR.

The following table shows the status of the LEDs when the 5012-SUR is operational.

Status	Power	Wireless Link	Ethernet Link
Starting up	Three red blinks followed by temporary solid amber	N/A	N/A
Radio scanning	US: Blinking amber/green or amber/yellow EU/WD: Blinking green or yellow	N/A	N/A
WORP link is up	US: Solid green or yellow EU/WD: Solid green or yellow	Blinking green or yellow	Off: No Ethernet Solid amber: 10 Mbps Solid green or yellow: 100 Mbps
No WORP link	US: Blinking amber/green or amber/yellow EU/WD: Blinking green or yellow	N/A	Off: No Ethernet Solid amber: 10 Mbps Solid green or yellow: 100 Mbps

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Status	Power	Wireless Link	Ethernet Link
WORP linked, no traffic on interface	US: Solid green or yellow EU/WD: Solid green or yellow	Blinking green or yellow	Off: No Ethernet Solid amber: 10 Mbps Solid green or yellow: 100 Mbps
WORP linked, normal operation; passing traffic	US: Solid green or yellow EU/WD: Solid green or yellow	Blinking green or yellow	Off: No Ethernet Solid amber: 10 Mbps Solid green or yellow: 100 Mbps
System failure	Solid Red	N/A	N/A
Bootloader mode	Permanent Solid Amber	N/A	N/A

Notes:

- "Blinking amber/green" indicates that the LED alternates between amber and green blinks.
- "Blinking amber/yellow" indicates that the LED alternates between amber and yellow blinks.
- "Solid green or yellow" indicates that the LED displays either solid green or solid yellow, depending on the hardware variant.
- "Blinking green or yellow" indicates that the LED blinks either green or yellow, depending on the hardware variant.

If a wireless link is not established with the BSU, adjust the direction of the unit so that the integrated antenna is more precisely aimed toward the BSU. When the Power LED is solid green or solid yellow, the link is correctly established.

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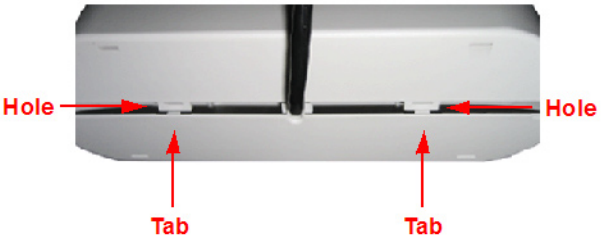
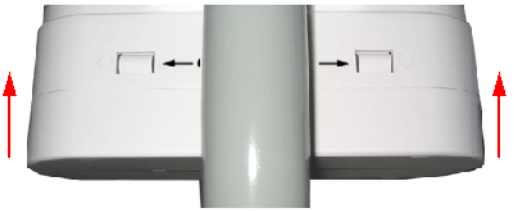
Step 5: Close Cable Compartment

1. Ensure that the Ethernet cable is properly routed and exiting the unit through the notch at the bottom of the cable compartment.
2. Position the cable cover so that the notch in the cover fits over the Ethernet cable (not pictured) and the large tabs on the cover are aligned below the holes in the unit.

3. Align the small tabs in the bottom cover with the holes in the unit.



4. Slide cover upward until all tabs (large and small) on the cover snap into their respective holes on the enclosure.



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The assembly with the cable cover attached is shown below.

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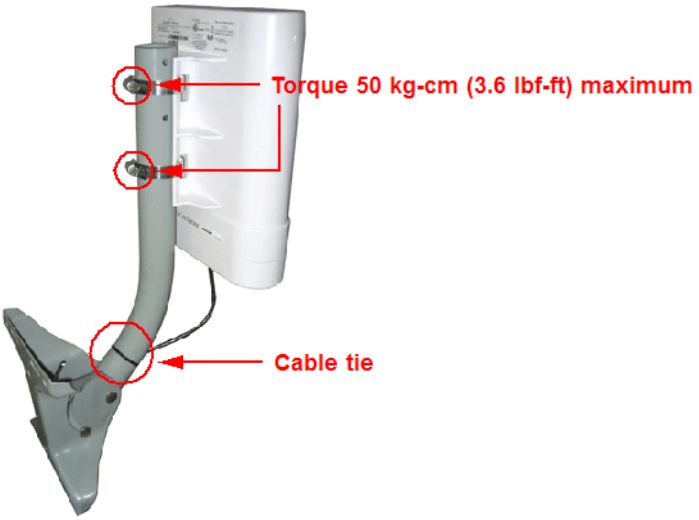
Step 6: Tighten Band Clamps

1. Using a 5/16” nutdriver or a screwdriver, fully tighten both band clamps (maximum torque 50 kg-cm/3.6 lbf-ft).
2. Secure Ethernet cable to the pole with cable ties. Provide some slack between the unit and the first cable tie, which should be within 12 inches of the unit. Continue to secure cable with cable ties at 3-foot intervals.

The final assembly, using the optional Proxim universal pole mounting kit (P/N 1087-UMK), is shown below.



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Step 7: Install Documentation and Software

To install the documentation and software on a computer or network:

1. Place the CD in a CD-ROM drive. The installer normally starts automatically. (If the installation program does not start automatically, double click **setup.exe** on the installation CD.)

2. The following documentation and software products are installed:
   - Available from **Start > All Programs > Tsunami > MP.11 5012-SUR**:
     - Documentation (in **Docs** subdirectory):
       - Installation and Management Guide
       - Quick Installation Guide
       - Safety and Regulatory Guide
     - Online Help
     - Scan Tool (in Scan Tool subdirectory)
     - TFTP Server (in TFTP Server subdirectory)

     All of these items are also available from **C:\Program Files\ Tsunami\5012-SUR**.

   - Available from **C:\Program Files\Tsunami\5012-SUR**:
     - Documentation (in **Docs** folder): See list above
     - Help files (in **Help** folder; click on index.htm to access)
     - MIB files (in **MIBs** folder)
     - TFTP Server (in **Extras** folder)

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INITIALIZATION

Connecting to the unit requires either:

- A direct physical connection with an Ethernet cable or with a serial RS-232 cable
- A network connection

Connecting with the Ethernet cable allows you to use of the Web Interface and SNMP in addition to the CLI. Connecting with a serial connection allows you to configure and manage the unit with the CLI.

Using a serial connection, you can access the unit through a terminal emulation program such as HyperTerminal. (See "HyperTerminal Connection Properties" in the Tsunami MP.11 Reference Manual.)

Setting the IP Address

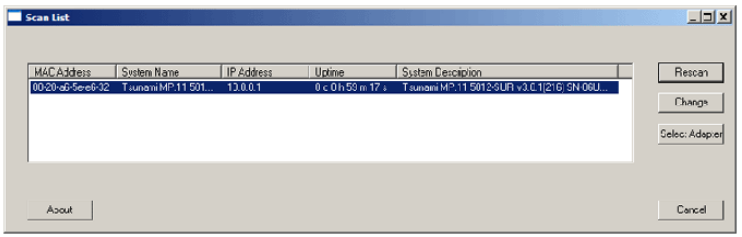
With ScanTool (a software utility that is included on the product installation CD), you can find out the current IP address of the unit and, if necessary, change it so that is appropriate for your network.

ScanTool lets you find the IP address of a Tsunami MP.11 5012-SUR by referencing the MAC address in a Scan List, or to assign an IP address if the correct one has not been assigned. The tool automatically detects the units installed on your network segment, regardless of IP address, and lets you configure each unit's IP settings. In addition, you can use ScanTool to download new software to a unit that does not have a valid software image installed.

To discover and set/change the IP address of the unit:

1. Run ScanTool on a computer connected to the same LAN subnet as the unit, or a computer directly connected to the unit with a cross-over Ethernet cable. Double-click the ScanTool icon on the Windows desktop to launch the program. If the icon is not on your desktop, click **Start > All Programs > Tsunami > MP.11 5012-SUR > Scan Tool**.

   ScanTool scans the subnet for 5012-SUR units and displays a list of the units it finds in the Scan List window (shown below). If necessary, click Rescan to re-scan the subnet and update the display.



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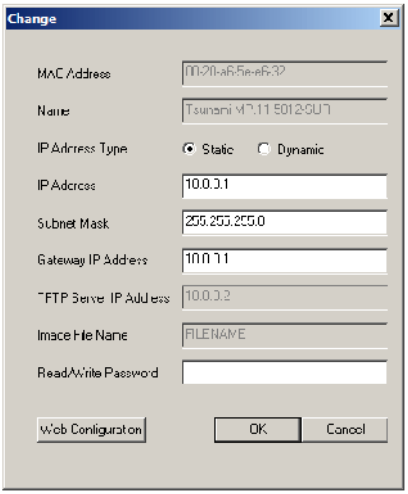
2. Select the unit for which you want to set the IP address and click **Change**. The **Change** dialog window is displayed.



3. To set the IP address ***manually***, ensure that **Static** is selected as the **IP Address Type** and fill in the **IP Address** and **Subnet Mask** suitable for the LAN subnet to which the unit is connected.

   To set the IP address ***dynamically***, ensure that **Dynamic** is selected as the **IP Address Type**. The unit will request its IP address from a DHCP server on your network.

4. Enter the **Read/Write Password** (the default value is **public**) and click **OK** to confirm your changes. The respective unit reboots to make the changes effective.

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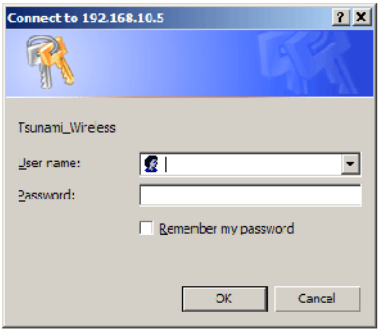
Accessing the Web Browser

To access the unit with a Web browser:

1. Start your Web browser and enter the IP address of the unit in the **Address** box. The Web address should appear as **http://<ip address>** (for example, **http://10.0.0.1**).

   A login window is displayed.



2. A login window is displayed. Do not fill in the User name; *enter only the default password **public** or the configured password*.

3. Upon successful login, the **System Status** window is displayed.

Status
Event Log
Status
Configure
Monitor
Commands
Help
Exit
System Status
Tsunami MP.11 5012-SUR v3.0.1(216) SN-06UT12560619
Wireless IP Address 10.0.1.1
Wired IP Address 192.168.10.5
Name TsunamiMP.11 5012-SUR
Object ID 1.3.6.1.4.1.1.1

Accessing the Command Line Interface

Ethernet Port

To use the CLI through the Ethernet port, you must have a telnet program, the CLI password, and the unit's IP address.

To access the unit through Ethernet on a Windows PC:

1. Open a DOS command window: from the Windows **Start** menu, select **Run**; enter **cmd.**
2. In the DOS window displayed, enter the IP address (for example, **`telnet 10.0.0.1`**).
3. Click **OK** to start the telnet program; you are prompted for your password.
4. Enter the password (the default password is **`public`**).

Serial Port

In some cases, it may not be possible to retrieve the unit's IP address. In this case, you can connect to the serial port by connecting to the unit through the serial port. You still need the CLI password of the unit. Proxim recommends you power off the radio and the computer before connecting or disconnecting the serial cable.

To access the unit through the serial port:

1. Start your terminal program.
2. Set the following connection properties; then connect:

COM port:	such as COM1 or COM2, to which the unit's serial port is connected
Bits per second:	9600
Data bits:	8
Stop bit:	1
Flow control:	None
Parity:	None
Line ends:	Carriage return with line feed

3. Disconnect and reconnect power to reset the unit. The terminal emulation program displays Power On Self Test (POST) messages. After approximately one minute (four minutes if DFS is enabled), you are prompted for your password.
4. Enter the default password **public**.

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DEFAULT SETTINGS

Setting	Default
Mode of Operation	Bridge
Routing	Disabled
IP Address Assignment	Static
IP Address	10.0.0.1
Subnet Mask	255.255.255.0
Default Router IP Address	10.0.0.1
Default TTL	64
RIPv2 (if in routing Mode)	Enabled
Base Station System Name	<blank>
Network Name	OR_WORP
Frequency Channel	Channel 149, 5.745 GHz (for FCC devices) DFS Enabled (World Mode devices)
Transmit Power Control	0 dB
Data Rate	36 Mbps
Registration Timeout	5
Network Secret	public
Turbo Mode	Disabled
Channel Bandwidth	20 MHz
Serial Port Baud Rate	9600
SNMP Management Interface	Enabled
Telnet Management Interface	Enabled
HTTP Management Interface	Enabled
HTTP Port	80
Telnet Port	23
Password	public
Maximum Satellites (per BSU)	250
MAC Authentication	Disabled
Radius Authentication	Disabled
Encryption	Disabled
Static MAC Address Filter	Disabled / No Entries
Ethernet Protocol Filtering	All Filters Disabled
DFS Priority Frequency Channel	Disabled
Announcement Period (when roaming enabled)	100 ms

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Setting	Default
Multi-Frame Bursting	Enabled
Storm Threshold	Broadcast/Multicast Unlimited
Broadcast Protocol Filtering	All Protocols Allowed
Dynamic Data Rate Selection	Disabled
Roaming	Disabled
NAT	Disabled
Intra-Cell Blocking	Disabled
Country Selection	US-only device–US World device – GB
DHCP Server	Disabled
DHCP Relay	Disabled
Spanning Tree Protocol	Disabled
Antenna Gain (For DFS Threshold compensation)	0
Satellite Density	Large
VLAN Mode	BSU: Transparent mode SU: Transparent mode when BSU is in Transparent mode; Trunk mode when BSU is in Trunk mode.
Access VLAN ID	BSU: N/A; SU: 1
Access VLAN Priority	BSU: N/A; SU: 0
Management VLAN ID	BSU: -1; SU: -1
Management VLAN Priority	BSU: 0; SU: 0
VLAN ID in Trunk VLAN Table	BSU: N/A; SU: 1

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TECHNICAL SERVICES AND SUPPORT

If you are having trouble utilizing your Proxim product, please review the *Installation and Management Guide* and the additional documentation provided with your product.

If you require additional support, please refer to the "Technical Services and Support" chapter in the *Installation and Management Guide* for details about the information you will need to gather before using the Support Options listed below.

Support Options

Proxim eService Web Site Support

The Proxim eService Web site is available 7x24x365 at:

- http://support.proxim.com

Telephone Support

Contact technical support via telephone as follows:

- Domestic: 866-674-6626
- International: +1-408-542-5390

Hours of Operation

- North America: 8 a.m. to 5 p.m. PST, Monday through Friday
- EMEA: 8 a.m. to 5 p.m. GMT, Monday through Friday

ServPak Support

Proxim understands that service and support requirements vary from customer to customer. In recognition of these varying requirements we have developed a support program called ServPak. ServPak is a program of Enhanced Service Options that can be purchased individually or in combinations to meet your needs.

- Advanced Replacement
- Extended Warranty
- 7x24x365 Technical Support
- Priority Queuing

To learn more, please call Proxim Support at +1-408-542-5390 or send an email to servpak@proxim.com. To purchase ServPak support services, please contact your authorized Proxim distributor.

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